

MANUFACTURED HOME FIRE SAFETY

Ideas You Can Use

FIRE ESCAPE PLANS

Statistics show that 85% of all fires occur in homes, and the fire death rate in *manufactured* home is twice the death rate in other types of homes. One reason for this is that fires move more quickly in manufactured homes. Since you'll have less time to escape, there is a greater need to know how. Creating and practicing a plan of escape will give you the edge you'll need in a fire emergency. Here are some key ideas to incorporate into your plan...

- Prepare a fire escape plan and hold escape drills at least twice a year. Treat the drills as though you are reacting to a real fire.
- Draw a floor plan of your home, marking two ways out of each room including doors *and* windows. This is an excellent way to get children involved in your fire escape planning.
- Allow children to master the fire escape plan before making the drills more true-to-life, like holding the drill at night. Your goal is to practice, not frighten the children.
- It is important to determine during the drill whether children and other family members can readily awaken to the sound of the smoke alarm. If anyone fails to awaken, make sure a person is assigned to wake them up as part of the drill as well as in a real fire emergency.
- Teach children how to report a fire and when to use 9-1-1.
- When you conduct your drill, everyone in the family should practice crawling low on their hands and knees, one or two feet above the ground. Don't crawl on your stomachs because some poisons produced by smoke are heavier than air and travel along the floor.
- If there are infants, older adults or family members with mobility limitations, make sure someone is assigned to assist them in the fire drill and in a real emergency.
- Check to see if your street number is clearly visible from the street. If not, paint the number on the curb and/or install house numbers so the responding emergency personnel can easily locate your home.
- Select an outside reassembly point for family members to meet after escaping from a fire. Mark the reassembly point on your fire escape plan.
- If there is a fire, get out immediately, go to a neighbor's home and notify the fire department using the 911 system or the proper local emergency number in your area.
- In a real fire, once you are out, stay out. People who go back in "for just a second" never have a second chance.

SMOKE ALARMS

More than half of all fatal fires occur while people are asleep, and because the carbon monoxide in the smoke can put people into a deeper sleep, it's very important to have an effective early warning system in your home.

- Install smoke alarms in each bedroom as well as in the hallway outside the sleeping areas. Position them on the ceiling at least four inches from any wall, or put them on a wall, six to 12 inches below the ceiling.
- Test and clean dust your smoke alarms monthly.
- Change your batteries every six months.
- If you have limited mobility and are unable to change the batteries in your smoke alarm, call your local fire department for assistance.
- Recent studies show that children often sleep through the sound of a smoke alarm. Teach children to recognize the sound of the smoke alarm and take action. If a child continues to sleep through the smoke alarm, assign a person to make sure the child is awakened.
- For people who have a hearing impairment, consider installing smoke alarms with an extra loud horn. Some alarms now feature horns that sound with an 85-decibel alarm. There are also smoke alarms available that use a flashing light, vibration and/or sound to alert people.

IN THE KITCHEN

- Never leave food unattended. Turn the oven/stove off before leaving home.
- Twice a year, wash the stove hood where the aluminum mesh spatter screen is held in place. Soak for at least 30 minutes and then rinse to clear any remaining grease. This will help keep a stove top fire from spreading.
- Mount an ABC type portable fire extinguisher in the kitchen and near an exit.
- Keep cooking areas around the stove clean and clear of combustibles such as potholders, towels or food packaging.
- Prevent burns and stove top fires by turning pot and pan handles inward so they can't be bumped and children can't grab them.
- Always keep a potholder, oven mitt and lid handy. If a grease fire starts in a pan, put on the mitt and smother the flames by carefully sliding the lid over the pan and turning off the burner. Never pour water on a grease fire. It can spray or shoot burning grease around the kitchen, actually spreading the fire.
- Wear short, close fitting or tightly rolled sleeves when you are cooking. Loose clothing can dangle onto stove burners and catch fire.
- If there is a microwave fire, keep the door closed and unplug the microwave.
- If there is an oven fire, turn off the heat and keep the door closed to prevent flames from burning you and your clothing. Never carry anything that is on fire.

CANDLE CARE

- Extinguish all candles when leaving the room or going to sleep.
- Keep candles away from items that can catch fire such as clothing, books, paper, curtains, Christmas trees and flammable decorations.
- Use candle holders that are sturdy, won't tip over easily, are made from a material that can't burn and are large enough to collect dripping wax.
- Don't place lit candles in windows where blinds and curtains might close over them.
- Avoid candles with combustible items embedded in them.
- Keep candles up high out of reach of children.
- Don't allow children or teens to have candles in their bedrooms.

ELECTRICAL

- Make sure the light bulbs in your fixtures do not exceed the correct wattage. If the wattage is higher than recommended, heat produced inside the fixture can lead to fire inside the fixture, ceiling or wall.
- If the lights flicker or dim every time you turn on an appliance, the circuit is overloaded or has a loose connection. If sparks appear when you insert or remove a plug, it can be a sign of loose connections. A light bulb that burns out frequently is a sign that the bulb wattage is too high for the fixture.
- Avoid overloading electrical circuits. Many manufactured homes do not have circuits rated for the amount of electronics residents put on them.
- Know where your circuit breaker box is located in your home.
- Look for burn marks at the main electrical panel; they can be a sign of arcing inside the panel, which can lead to a fire. Loose connections or damaged insulation can cause the arcing.
- Space heaters need space. Keep a minimum of 36" of space surrounding them. Do not place portable heaters close to drapes, clothing or other combustible materials and use only in well ventilated rooms.
- Do not overload outlets, extension cords or electrical circuits. If the circuit breaker trips or fuses blow, call a licensed electrician to check your system.
- Outlets should have cover plates and no exposed wiring.
- Make sure wiring does not run under rugs, over nails, or across high traffic areas.
- Remove combustibles such as paper boxes or flammable liquids from the area around your main electrical panel. Sparks caused by arcing inside the panel can ignite these materials.
- Check all electrical outlets for loose-fitting plugs—they are an indication of a worn out receptacle. Worn receptacles should be replaced because they cause overheating that can lead to fires.
- Install safety covers to help protect children from electrical shock.
- Discard extension cords that are brittle, worn or damaged. Exposed wires may cause arcing, which will produce heat and can start a fire.
- Extension cords are for temporary use only, not as a permanent solution. Be careful to only use extension cords that are rated for the power used by the device they are powering.
- If an electrical cord is warm to the touch, the cord is either underrated or defective.

SECONDARY EXITS

- Survey your home to make sure there are at least two ways out of each room in case of fire.
- Teach children how to remove window screens and open latches for windows to be used as a secondary exit.
- Make sure windows are not nailed or painted shut. Never install a double cylinder deadbolt lock on your exit doors. They require a key to unlock from the inside. When you need to exit in a hurry, this type of lock can be deadly.
- Windows higher than 36 inches from the floor can be difficult for seniors or children to use as a secondary exit. Consider placing a foot stool below the window, or having a contractor add a door to the room.
- Make sure there is a sturdy landing outside your secondary exit doors. Also, check to see that the distance to the ground is not excessive below your secondary exit windows.
- Avoid placing furniture or other large items in locations that block your secondary exits.
- If you have security bars in your home, make sure they have quick-release mechanisms inside so they can be opened immediately in an emergency. Be sure that everyone knows how to release the bars, especially young children.

MECHANICAL SYSTEMS

There are several mechanical systems in a manufactured home that require maintenance. These systems include heating equipment such as furnaces, flues, fireplaces, space heaters, wood stoves, water heaters, kitchen stoves, as well as electrical systems and electrical appliances. The bad news; if these systems aren't properly maintained, the potential for fire increases. The good news; fires in all these systems are preventable.

AIR CONDITIONING

Have a professional air conditioning contractor inspect and maintain your air conditioning system. Maintenance should include:

- Cleaning the evaporator coil
- Lubricating fans and motors
- Tightening or changing the belts
- Checking electrical safeties
- Checking the drain pan for leaks
- Testing the capacitors
- Checking the condensate drain
- Testing the crankcase heater

WATER HEATER

- If you have a gas-fired water heater, periodically check to make sure it is venting properly. Light a match next to the vent and wave it out (don't blow it out). See if the smoke is pulled up into the vent. If it isn't, have a professional inspect and repair.
- Check around the base of your water heater for evidence of leaks. If your water heater is more than five years old, check it monthly for any leakage or rusting at the bottom. If water leakage or rust is found, your water heater should be replaced.

CLOTHES DRYER

- Do not operate your dryer without a lint filter
- Clean lint filters before or after each use, and remove accumulated lint from around the drum. Lint buildup can restrict air flow that causes heat retention. This retained heat can lead to a fire in the tumbler.
- Keep the dryer area clear of combustibles such as clothing or boxes.
- Turn your dryer off when leaving home.

PORTABLE SPACE HEATERS

- Keep space heaters away from hallways and doorways where they can be knocked over.
- Place the heater on a level, hard and nonflammable surface. Keep space heaters safely away from bedding, clothing, draperies, carpets, upholstered furniture and other flammable items.
- Select a space heater with a guard around the flame area or heating element.
- Keep doors open to the rest of the home if you are using an unvented fuel-burning space heater. This helps prevent pollutant build-up and promotes proper combustion.
- Unplug space heaters when you go to sleep or leave the area.
- Only electric or vented fuel-fired heaters should be used in a manufactured home.

FURNACE

- Clean or change furnace filters regularly—Replace disposable filters. Wash, brush or vacuum permanent filters.
- Check the exhaust vent from the furnace—Clear obstructions such as leaves or animal nests from the vent pipe. Keep roof exhaust vents clear of snow.
- Inspect the blower motor with the power off—Vacuum any accumulated dirt. If the calls for it, oil the motor. Inspect the V-belt and pulleys for wear. Tighten the belt if it moves more than an inch when you push it.
- Check the air intake—Most manufactured home furnaces draw combustion air from beneath the home. To allow air to pass freely, the skirting should have four to six vents.
- Replace carpeting in the furnace compartment with sheet metal or other fireproof material—Newer home furnaces have wire mesh in front of the stack to prevent storage on top of the furnace. If this mesh is missing, replace it.
- Be sure the thermostat on your furnace is in good working condition by keeping it clean. Have it checked periodically by a heating professional.
- Clean any debris from the furnace area and don't use your furnace closet for drying clothes.
- Check the flue assembly—(when cool) for alignment and rigidity. The flue should run in a straight line from the top of the furnace through the ceiling. Be sure the flue is attached to the furnace collar. Check for loose wiring near the flue. If you find any, move it and secure it well away from the flue pipe.
- Keep the flue pipe free of carbon deposits—Have your furnace maintenance person check and clean the flue pipe, fuel lines, safety controls and burner before each heating season.
- Use sheet metal or other fireproof material as floor covering in the furnace compartment. Never use carpeting as a floor covering.
- Keep the furnace compartment clean and free of combustibles, and avoid using the furnace compartment to dry clothing. The only thing that should be in the compartment is the furnace.
- Maintain your home heating system by having it serviced before each heating season by a professional. This also includes chimneys and wood stoves.

COMBUSTIBLES

- Use the "three-foot rule." Keep combustibles at least three feet away from *any* heat source.
- Clean out storage areas. Don't let trash such as old newspapers and magazines accumulate.
- Don't place hay, straw or other combustible materials beneath your home. They can dry out and easily ignite.
- Store flammable liquids like gasoline, kerosene, paint thinner, etc. in approved containers in a well-ventilated storage area outside your home, but not *under* your home. They produce invisible vapors that can ignite even from a small spark.

PORTABLE FIRE EXTINGUISHERS

Fire extinguishers saves lives and property by putting out or containing small fires until the fire department arrives. However, even against small fires extinguishers should be used *only* if your answers to these questions are "yes"...

- Do you know how to use an extinguisher, and what to expect when you pull the pin?
- Do you know where the extinguisher is located without having to look for it?
- Do you have a clear escape route behind you, so you won't be trapped by the fire?
- Is your fire extinguisher large enough to fight the fire, and do you feel confident in your ability to put out the fire?

PORTABLE FIRE EXTINGUISHERS (Continued)

- Make sure your fire extinguishers are multi-purpose, dry-chemical extinguishers, suitable for class A, B and C fires. Keep them recharged so they're ready when you need them.
- Fire professionals recommended positioning a fire extinguisher in your kitchen area and near the furnace. Be sure they are also near an exit so you won't be trapped by the fire.
- Be careful not to overestimate what you can accomplish with a fire extinguisher. They are called "first aid fire appliances."

SMOKING

- Fires started by cigarettes cause more deaths than any other kind of fire. Avoid smoking when you are in bed or drowsy.
- Be careful when disposing of cigarettes and use large, deep ashtrays.
- Keep matches and lighters up high and out of the reach of children.

OUTSIDE

- Install skirting material to keep leaves and other debris and combustible items from blowing under your home. This also keeps animals from getting under the home and causing damage.
- Protect gas lines from incidental contact like an automobile that's backed into a gas meter.
- Regularly prune landscape shrubs and trees around your home to prevent them from adding fuel to a fire.

IN COLDER CLIMATES

- Make sure all your doors and windows open easily. Secondary exit doors and windows can freeze shut during the winter months if not kept operable.
- Inspect heat tape periodically to be sure the tape isn't cracked, worn or frayed. Do not install heat tape over leaking pipes. To prevent overheating, do not cross tape over itself.
- Wood burning stoves must be certified for use in a manufactured home and have outside combustion air drawn into the fire area.

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Discussion Questions

1. What specific things can you do in your home to reduce the chance of being trapped by fire?
2. Are there ways you can increase fire safety in your home for visitors or family members who have a disability?
3. If a fire occurred in your home right now, what would you do first?
4. Does your manufactured home community have a representative designated to meet with fire officials in an emergency? Do you have an alternate representative?
5. If a fire in the kitchen blocked your front door exit pathway, what secondary exit(s) do you have available? How would you create additional secondary exits?
6. How and where are you storing flammable materials such as propane and gasoline?

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Review Questions

1. In a fire emergency, residents should ____ after getting out of their home.
(A) seek medical help (B) go to their reassembly point (C) report to the fire marshal
2. ____ is the most common cause of fires in manufactured homes.
(A) arson (B) faulty electrical equipment/wiring (C) smoking
3. If you have to escape through an area filled with smoke, you should ____.
(A) stop, drop and roll (B) wait to be rescued (C) crawl low, under the smoke
4. One of the primary mistakes people make with fire extinguishers is ____.
(A) holding it improperly (B) overestimating what it can do (C) aiming it too high
5. Smoke alarms should be placed in each bedroom as well as ____.
(A) in the garage (B) in the kitchen (C) in the hallway outside the bedrooms

True or False

- 1. An automatic sprinkler system is activated by heat, not smoke.
- 2. The only valid reason for going back into a burning building is to rescue someone if the fire department is late in arriving.
- 3. According to Fire Captain, Charlie Johnson, the most common cause of manufactured home kitchen fires is food left-unattended.
- 4. The fire death rate in manufactured homes is about half the death rate in other types of homes.
- 5. A window is a good example of a secondary exit.

Name: _____ Date: _____

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Review Question Answers

1. (B) go to their reassembly point
2. (B) faulty electrical equipment/wiring
3. (C) crawl low, under the smoke
4. (B) overestimating what it can do
5. (C) in the hallway outside the bedrooms

True or False

1. True
2. False. Never go back into a burning building
3. True
4. False. The fire death rate is **twice** the fire death rate in other types of homes.
5. True